

## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/IB 03/04900

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 H01L23/485

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 H01L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 911 111 A (LUCENT TECHNOLOGIES INC) 28 April 1999 (1999-04-28) abstract; figure 3 page 3, paragraph 11 – paragraph 12 page 4, paragraph 22 – page 6, paragraph 34 claims 1,7-11	1,2,9,10
A	WO 01 56081 A (MARCONI CASWELL LTD ;WARNER DAVID JOHN (GB); HUMPTON GILES (GB);) 2 August 2001 (2001-08-02) abstract; figures 3,5 page 4, line 7 -page 7, line 2 claims 1-4,7-10,12-16	3-5,7,8
A	---	1,2,5-10
	---	-/-

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

\* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*&\* document member of the same patent family

Date of the actual completion of the international search

5 February 2004

Date of mailing of the international search report

17/02/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Favre, P

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/IB 03/04900

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 714 126 A (AT & T CORP) 29 May 1996 (1996-05-29) abstract; figure 2 column 2, line 35 -column 3, line 55 column 5, line 4 -column 6, line 10 column 10, line 47 - line 54 claims 1-4 --- EP 0 542 475 A (AMERICAN TELEPHONE & TELEGRAPH) 19 May 1993 (1993-05-19) abstract; figure 1 page 3, line 18 -page 5, line 9 claim 1 ----	1,2,7-10  1

**INTERNATIONAL SEARCH REPORT**

 International Application No  
 PCT/IB 03/04900

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
EP 0911111	A	28-04-1999	US EP JP	5990560 A 0911111 A2 11192581 A	23-11-1999 28-04-1999 21-07-1999
WO 0156081	A	02-08-2001	WO GB	0156081 A1 2364172 A	02-08-2001 16-01-2002
EP 0714126	A	29-05-1996	US DE DE EP JP	5559817 A 69529883 D1 69529883 T2 0714126 A1 8213713 A	24-09-1996 17-04-2003 08-01-2004 29-05-1996 20-08-1996
EP 0542475	A	19-05-1993	US CA DE DE EP HK JP JP JP SG	5197654 A 2080931 A1 69217617 D1 69217617 T2 0542475 A1 118597 A 2045214 C 6069608 A 7077280 B 43759 A1	30-03-1993 16-05-1993 03-04-1997 17-07-1997 19-05-1993 05-09-1997 09-04-1996 11-03-1994 16-08-1995 14-11-1997

**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- BLACK BORDERS**
- IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- FADED TEXT OR DRAWING**
- BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- SKEWED/SLANTED IMAGES**
- COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- GRAY SCALE DOCUMENTS**
- LINES OR MARKS ON ORIGINAL DOCUMENT**
- REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- OTHER:** \_\_\_\_\_

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.**